REMARKS

In this Response, Applicants amend claims 1, 5, 8, 9, 12, 15-20, 23, 24 and 26. Claims 1-26 are currently pending, of which claims 1, 12 and 16 are independent. No new matter has been added. Applicants respectfully request reconsideration of the outstanding rejections and passage of the claims to allowance.

I. Claim Objections

Claims 1-26 are objected to because of informalities listed in the Office Action (Office Action, paragraph 4).

Applicants amend claims 1, 12 and 16 to recite "said at least one graphical model."

Applicants amend claims 5, 15 and 20 to recite "said at least one token."

Applicants amend claims 8 to recite "a manner."

Applicants amend claims 9 and 24 to recite "said user-selected parameters."

Applicants amend claims 17-19 and 26 to recite "said computer-readable medium... further storing computer-executable instructions for...."

As such, Applicants respectfully request reconsideration and withdrawal of the objection to claims 1-26.

II. Rejection of Claims 1-8, 11-23 and 26 under 35 U.S.C. § 103(a)

Claims 1-8, 11-23 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over "Real-Time Workshop® User's Guide," January 1999 (hereafter "RTW_UG") in view of U.S. Patent Publication Number 2003/0056195 to Hunt (hereafter "Hunt") (Office Action, paragraph 6). Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claims 1-8, 11-23 and 26 as set forth below.

A. Claim 1

Independent claim 1 recites:

> "In an electronic device having a graphical modeling and execution environment, said graphical modeling and execution environment including at least one graphical model, a method comprising the steps of:
> providing an automatic code generator to create source code that implements functionality of said at least one graphical model and that corresponds to data referenced by said at least one graphical model;
> specifying a first manner in which said automatic code generator creates said source code;
> ***providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner***; and
> creating said custom storage class in said graphical modeling and execution environment utilizing parameters selected by a user from said plurality of selectable parameters." [emphasis added]

Applicants respectfully submit that RTW_UG and Hunt, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 1: "providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner."

RTW_UG is a user guide for Real-Time Workshop® which produces code from Simulink® models and automatically builds programs that can be run in a variety of real-time and stand-alone environments (RTW_UG, page 1-2). Real-Time Workshop® allows automatic program building which provides a standard means for creating programs for real-time applications (RTW_UG, page 3-2).

The Examiner correctly points out that RTW_UG does not disclose or suggest:

"providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner," as recited in claim 1 (Office Action, paragraph 6).

The Examiner alleges that Hunt discloses the above feature of claim 1 that is missing from RTW_UG. Applicants disagree with the Examiner since the disclosure of Hunt does not cure the shortcomings of RTW_UG with respect to the features of claim 1.

The Examiner points to Hunt as disclosing or suggest the above feature of claim 1 (Office Action, paragraph 6):

> "Hunt discloses:
> - providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner (***see Figure 2; Paragraph [0049], "The code generator tool of the preferred embodiment of the present invention is embodied as an application program that presents the user with a Graphical User interface (GUI) that can be used to easily input meta data about an object model."; Paragraph [0050], "Turning now to FIG. 1, by way of an overview, the user of the code generator 100... of the present invention enters meta-data 102 into the code generator 100's GUI."; Paragraph [0083], "Consider now the entry of the meta data used in connection with the present invention. Such information representing the meta data is input via the GUI such as illustrated in FIGS. 2-6."***); and
> - creating said custom storage class in said graphical modeling and execution environment utilizing parameters selected by a user from said plurality of selectable parameters (see Paragraph [0088], "When the user is ready to build the class, the "Generate" button 218 can be selected, for example by clicking with a mouse.")" [emphasis added]

The Examiner's reliance on Hunt is misplaced. The cited sections of Hunt do not disclose or suggest "providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner," as recited in claim 1, because Hunt does not disclose or suggest a custom storage class. For the sake of completeness, Applicants address the cited sections of Hunt as set forth below.

Hunt at paragraph [0050] discusses making a change to an object model. A user simply updates the meta data and regenerates all the files associated with the object model using a code generator 100. The code generator 100 generates code for object-oriented components: classes, class members, class methods, and interfaces (Hunt, paragraphs [0038-0042]). In generating object-oriented code, the code generator 100 uses meta data associated with each component (Hunt, paragraphs [0038-0042]). For example, meta data for a class includes information on the base class, class members, methods and interfaces (Hunt, paragraph [0039]).

In Hunt, each class has associated meta data which includes information on the class, like the base class, class members, class methods and class interfaces, etc. Hunt discusses generating code for object-oriented components for a class, like methods, interfaces, etc, by using the meta data associated with the class. The meta data of a class in Hunt specify generation of code for **object-oriented components of that class**, not for data. More specifically, Hunt does not disclose or suggest creating source code corresponding to **data referenced by a graphical model**, as required by claim 1. The meta data information on class components in Hunt does not apply to data referenced by a graphical model, since data referenced by a graphical model is not an object-oriented component of a class. In addition, the meta data in Hunt does not include information on generating code corresponding to data referenced by a model, and could not be used to create source code corresponding to data referenced by a graphical model.

Furthermore, the object-oriented components in Hunt are in an **object-oriented programming environment**, not in a **graphical modeling and execution environment**, as required by claim 1.

Hunt at paragraphs [0049] and [0083] simply discusses that a user can enter meta data about an object model using a graphical user interface (GUI). These sections of Hunt do not disclose or suggest a custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner, as required by claim 1.

As such, Applicants respectfully submit that RTW_UG and Hunt, alone or in any reasonable combination, do not support a 35 U.S.C. § 103(a) rejection of claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection of claim 1.

B. Claims 2-8 and 11

Claims 2-8 and 11 depend from independent claim 1 and, as such, incorporate all of the elements of claim 1. Accordingly, claims 2-8 and 11 are allowable for at least the reasons set forth above with respect to claim 1. Applicants therefore respectfully request reconsideration and allowance of claims 2-8 and 11.

C. Claim 12

Independent claim 12 recites:

> "An electronic device having a modeling and execution environment with at least one graphical model, said electronic device comprising:
> a processor for:
> executing an automatic code generator to create source code that implements functionality of said at least one graphical model and that corresponds to data referenced by said at least one graphical model;
> specifying a first manner in which said automatic code generator creates said source code; and
> creating a custom storage class in said modeling and execution environment, said custom storage class created utilizing parameters selected by a user from a plurality of selectable parameters; and
> a display device for:

> ***displaying a user interface with said plurality of selectable parameters for said custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model, said second manner differing from said first manner***; and
>
> displaying a view of salient aspects of said source code generated by said automatic code generator utilizing said user-selected parameters." [emphasis added]

Applicants respectfully submit that RTW_UG and Hunt, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 12: "displaying a user interface with said plurality of selectable parameters for said custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model, said second manner differing from said first manner." A combination of RTW_UG and Hunt does not disclose or suggest a custom storage class specifying a second manner in which an automatic code generator creates source code corresponding to data referenced by a graphical model, the second manner differing from the first manner. As such, RTW_UG and Hunt, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 12. Accordingly, Applicants respectfully request reconsideration and allowance of claim 12.

D. Claims 13-15

Claims 13-15 depend from independent claim 12 and, as such, incorporate all of the elements of claim 12. Accordingly, claims 13-15 are allowable for at least the reasons set forth above with respect to claim 12. Applicants therefore respectfully request reconsideration and allowance of claims 13-15.

E. Claim 16

Independent claim 16 recites:

> "A computer-readable medium for use in an electronic device having a graphical modeling and execution environment, said

graphical modeling and execution environment including at least one graphical model, said computer-readable medium storing computer-executable instructions for:

providing an automatic code generator to create source code that implements functionality of said at least one graphical model and that corresponds to data referenced by said at least one graphical model;

specifying a first manner in which said automatic code generator creates said source code;

providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner; and

creating said custom storage class in said graphical modeling and execution environment utilizing parameters selected by a user from said plurality of selectable parameters." [emphasis added]

Applicants respectfully submit that RTW_UG and Hunt, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 16: "providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner." A combination of RTW_UG and Hunt does not disclose or suggest a custom storage class specifying a second manner in which an automatic code generator creates source code corresponding to data referenced by a graphical model in a graphical modeling and execution environment, the second manner differing from the first manner. As such, RTW_UG and Hunt, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 16. Accordingly, Applicants respectfully request reconsideration and allowance of claim 16.

F. Claims 17-23 and 26

Claims 17-23 and 26 depend from independent claim 16 and, as such, incorporate all of the elements of claim 16. Accordingly, 17-23 and 26 are allowable for at least the reasons set forth above with respect to claim 16. Applicants therefore respectfully request reconsideration and allowance of claims 17-23 and 26.

III. Rejection of Claims 9, 10, 24 and 25 under 35 U.S.C. § 103(a)

Claims 9, 10, 24 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over RTW_UG in view of Hunt as applied to claims 1 and 16, and further in view of U.S. Patent Publication Number 2003/0225774 to Davidov (hereafter "Davidov") (Office Action, paragraph 7). Applicants respectfully traverse the 35 U.S.C. § 103(a) rejection of claims 9, 10, 24 and 25 as set forth below.

RTW_UG, Hunt and Davidov, alone or in any reasonable combination, fail to disclose or suggest each and every feature of claims 9, 10, 24 and 25.

RTW_UG and Hunt have been summarized above.

RTW_UG and Hunt, alone or in any reasonable combination, fail to disclose or suggest each and every feature of independent claim 1 from which claims 9 and 10 depend, and independent claim 16 from which claims 24 and 25 depend. The teachings of Davidov do not supplement RTW_UG and Hunt in such a way as to cure the shortcomings of RTW_UG with respect to the features of independent claims 1 and 16.

Davidov relates to an infrastructure for creating applications for mobile information devices, using a tag-based markup language (Davidov, paragraph [0013]).

Regarding independent claim 1 from which claims 9 and 10 depend, Davidov does not disclose or suggest "providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second

manner differing from said first manner," as recited in claim 1. As such, a combination of RTW_UG, Hunt and Davidov fails to disclose or suggest each and every feature of claims 9 and 10 which depend from claim 1.

Regarding independent claim 16 from which claims 24 and 25 depend, Davidov does not disclose or suggest "providing a user interface with a plurality of selectable parameters for a custom storage class, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner," as recited in claim 16. As such, a combination of RTW_UG, Hunt and Davidov fails to disclose or suggest each and every feature of claims 24 and 25 which depend from claim 16.

As such, RTW_UG, Hunt and Davidov, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 9, 10, 24 and 25. Accordingly, Applicants respectfully request reconsideration and allowance of claims 9, 10, 24 and 25.

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CONCLUSION

In view of the foregoing amendments and arguments, Applicants believe that all claims should be passed to issuance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants' attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-062RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: August 11, 2008

Respectfully submitted,

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